

Promoting favourable conditions to
establish biodiesel market actions

Information Initiative Concerning Biodiesel

Experience in EU Countries

Intelligent Energy Europe Programme

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Intertermo Concept Ltd (ITC)
International Seminar



Biodiesel chains from natural resources to growing market address directly the following groups involved:

- **Agricultural community**
 - **Biodiesel producers**
 - **Automotive industry**
 - **Motor oil industry**
 - **Local energy agencies**
 - **Consumers**
- **Environmental groups**

For the incipient market growing in Romania all afore mentioned groups contribute to the progress in creating markets to achieve European liquid biofuel policies and targets compared to leading member states such as, amongst others, France, Austria and Germany.

Relevant case studies and respective best practices for dissemination and networking activities on biodiesel in Romania are required.

Socio-economic profile of Romania

In 1990 - 2000, Romania experienced a volatile economic environment characterised by unstable GDP evolution, high inflation and growing macroeconomic imbalances.

Macroeconomic conditions have improved over the last years based on investments in processing materials for biodiesel production.

Production statistics show that the strong acceleration in growth was partially the result of a spike in agricultural output which increased by 21.2% in real terms.

Use of crop residues as well as energy crops for fuel can improve the economics of farming while solving disposal hazards.

Especially energy crops for biodiesel production opens a new market for agriculture.

In EU open market the local biodiesel producers are aware of market structures in own country and also in neighbour “customer countries” in order to form own sales and promotion strategies.

Continuation of a strong growth fully supported by economic restructuring is likely to lead to growing country economy.

Europe and Romania



Romania



Transport sector profile in Romania

The transport sector in Romania is a significant consumer of final energy. In 2004 the final consumption in transport registered 4.16 Mtoe for a car stock of around 4 mil. The need for biofuels is estimated to 241 ktoe according to the EC Directive 2003/30/EC representing 5,75% biofuels use in the transport sector in 2010.

The potential for biofuels production is estimated to 1,400 ktoe with a reserve of up to 1.2 Mtoe for export to EU, representing up to 8% of the EU need estimation that amounts to up to 25 Mtoe in 2010.

Presently, the national cost of fuel, at the fuel station pump, is:

- around 1.04 Euro/litre gasoline and 1,02 Euro/litre diesel



Agricultural Sector

Romania has a total area of 237,500 sq. km. Forty-three (43%) percent of the land is arable, 28% is forest and woodland, 19% meadows and pastures, 3% permanent crops and 7% is devoted to other uses.

Romania's warm summers and cold winters define a transitional temperate-continental type of climate.

The agricultural area of Romania accounts for 25.2 % of that of all the CEE-12 and would contribute nearly 7.8 % of the Utilised

Agricultural Area of the EU-27. 47 % of population is living in rural area. Agricultural employment represents 28.3% of the national labour force (2004 census). In the period 2006-2008, the vegetal sector of the agriculture is expected to grow with a yearly rate of 3.7%.

In 2006, the contribution of the agricultural sector to the GDP was:

- agriculture - 11,7%,
- forestry - 0,24%,
- food industry - 6,0%.

In 2006, EU continues to be the main trade partner for Romania in the agri-food products sector, with a share of about 51% of the total export and 38% of import. The main products exported continue to be live animals, certain categories of vegetables and fruits, vineyards and wheat.

Oil crops

The oil crops are cultivated on 9% of the agricultural land. It is a dynamic sector with good development potential. The production is expected to increase to over 2 millions tones per year.

Also the exports increased continuously. A new increase is expected once the EU tax on oil imports (6.5 to 10%) will be eliminated.

Within the agricultural year 2006, Romania exported 150,000 tones sunflower oil, and 468,000 tones sunflower seeds.

The average prices for export were 523 Euro/tonne oil and 207 Euro/tonne seeds. Main export direction is EU (59%).

Sun flower & soybean cultivation areas

In 2005 and 2006 the cultivated areas are/were the followings:

year	soybean	sunflower	rape seeds
2006	180,668 ha	1,054,900 ha	181,524 ha
2005	143,949 ha	979,236 ha	88,904 ha

Biodiesel production potential in Romania

Today in Romania, there is to be commissioned a production capacity for biodiesel purposes of 100,000 to/year 2007 based on rape seeds.

The potential for a biodiesel and the investments are for nearly 500,000 to/year being in implementation many process facilities, on the basis of large available land areas for the production of raw materials.

Rape production. As mentioned above, the large majority (90%) of rape seeds production is exported, while the remaining rape and rape oil production is used in Romania for other purposes than biofuel (textiles and chemistry).

The rape cultivated area have an increasing trend. Currently, over 150,000 tones of rape seeds is exported for biofuels production.

Policies and regulations including tax (1)

- In the conditions of Romania is joining to the EU in 2007, the country assumed the strategic objectives in renewable energy resources field. The most important document is the Directive 2003/30/EC of 8 May 2003 on the promotion of the use of biofuels or other renewable fuels for transport (OJ L 123, 17.5.2003).
- This Directive stipulates that until 2010, biofuels will replace diesel and petrol up to 2% in 2005 and 5,75% by 2010.
- The Directive 2003/30/EC has been already included in the national legal frame throughout the Government Decisions: HG-1844/2005 that stipulates that the biofuel will replace diesel and petrol up to 2% by 2007, Romania's accession to EU and 5,75% by 2010.

Policies and regulations including tax (2)

2. Moreover, to implement the Energy Taxation Directive 2003/96/EC of 27 October 2003, has been already included in the national legal frame throughout the Law 571/2003 of the Romanian Code Fiscal (Law 571/2003) which provides for unconventional biofuels, only for biodiesel, which is excepted from taxes, transposing the provision of Directive 2003/96/EC of 27 October 2003 restructuring the Community framework for the taxation of energy products and electricity (OJ L 283, 31.10.2003).

The new Romanian Code Fiscal is allowing to all biofuels not only biodiesel in art. 3, HG 1844/2005 to be excepted from taxes.

3. Transposing the standard EN14214 as national standard – SR EN 14214.

Agricultural Potential for Biodiesel production in Romania

One of the most important sources for land and production availability will come from the increase in the production efficiency.

Currently, cereals use nearly 37% of the utilized agricultural area of 14.8 million ha, from which the area used for maize is the largest with 56% in 2005, followed by wheat with 35.5%. The next most important crop by area utilized is sunflower, with about 950,000ha.

The productivity increase is expected to be about 3% per year in the response to the gradual introduction of modern technology and machinery, considering an efficiency of production lower than in EU countries. As example, for cereal yields the EU reference is 4.77 t/ha, being in average of 3 t/ha in Romania. Regarding the oil, sugar and starch crops, the efficiency is even lower than in EU

Considering that the production level is kept at the 2005 level, the improvement of productivity means that less land is needed for the same production and an important land area will become available, including for biofuel production purposes.

A general estimation made for Romanian agricultural surfaces shows that from the total agricultural land resources - 14.8 mill. ha, ca. 3.7 mill. ha are arable land of good and very good quality.

If intensively cropped, this area could be the basis (ca 0.17 ha per capita) for ensuring the food security of the country population and to allow conversion of the remaining area of arable land (ca. 5.6 mill. ha) to other uses.

These other uses regards mainly grassland or forestland on those strongly degraded land areas, estimate at least 1.5 mill. ha of agricultural land to be afforested/reafforested, well remaining around 3 mill. ha available cultivation areas for biofuels raw resources crops.

Taking into account the most optimistic estimation, Romania have a potential for a production in 2010 of up to 2 millions to of bioethanol and up to 400,000 to of biodiesel, goals to be supported by the implementation of the IEE BIODIESEL CHAINS project too.

THANK YOU FOR YOUR ATTENTION !

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- we have opened the forum Biodiesel at http address:
<http://intertermo.conceptforum.net>

- Please Register and Participate for Exchange Information at the forum Biodiesel.
 - For English please visit the English Corner !!!